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ABSTRACT

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HE 011 310

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Abstract

Relationships among grade averages and reading test scores were sought in an effort to learn whether successful students are characterized by good vocabularies, understanding, and rapid reading. Seniors within a few weeks of graduation and their elementary teaching certificates were given the Nelson-Denny Reading Test. Pearson's *r* was calculated among grades and scores earned by the 152 subjects. Only the coefficient between comprehension and vocabulary was high. Only the relationship between grades and rate was negligible. Even though rapid reading, as well as slow reading, was carried out by both good students and poor students, the fairly high coefficients between rate and both vocabulary and comprehension and between grades and comprehension suggested that slow, careful reading need not be emphasized.

RELATIONSHIPS AMONG GRADE POINT AVERAGE, VOCABULARY, READING COMPREHENSION, AND READING RATE OF COLLEGE STUDENTS

If a college senior has made good grades, is he necessarily a good reader? Do his good grades mark him as a slow, careful reader, a rapid, comprehending reader, or neither? Is there a high, positive correlation between vocabulary and comprehension? What is the relationship between reading rate and scores on a vocabulary test; between rate and comprehension test scores?

Interrelationships among the language arts was often a topic of studies, articles, and speeches of the nineteen-forties (7). In more recent years, however, the interests of researchers have been concerned mainly with other aspects of educational problems. Those who have investigated reading speed, for example, have usually studied it as a function, rather than as a correlate, of comprehension.

Gray and Rogers (4) dispelled the notion that only good readers graduate from college. Spache and Berg (8) described the poor reader and stated that some of them get through college, not always with poor grades. In the University of Colorado study made by Cline (2), data, including reading scores, were collected from more than 200 students who aspired to become teachers. Good readers were found with both good and poor grade

point averages. Poor readers, also, included students with good grades and students with poor grades. Correlation coefficients were not reported. Pepper (6), however, did report relationships between grades and test scores when he investigated the accomplishments of 155 students marginally admitted to Wayne State University. Correlations did not differ statistically from zero between grades and reading rate, grades and vocabulary scores, and grades and comprehension test scores. In reviewing 1969 research, Bleiesmer (1) included an investigation at Ball State University by Medler, who compared test scores of three groups who had begun a major in elementary education. One group was composed of students who completed their program and graduated; another, of students academically disqualified; and the third, of students who changed from elementary education to another major. The graduated elementary education group was found to be superior in all areas tested. Correlations between the various factors were not reported.

Stauffer (9) interpreted statements by both Tinker and Leichty as suggestions that there is virtue in "slowness" of reading. Stauffer favored flexibility and was more interested in comprehension rate than in words per minute. Correlation between rate and comprehension was considered by Dallman (1966) to be positive, but not high. Geeslin (3) was among those who found that reading rate could be increased without loss in comprehension.

Apparently, few investigators have given reading tests to subjects whose scholastic success was characterized by impending graduation and then reported the relationships among the various subtests and between each subtest, including rate, and a grade point average based on three or more years of college work. It was the purpose of the present investigation to make those correlation coefficients available.

Method

In the 1973-74 school year, 152 seniors, majoring in elementary education, took a reading test while enrolled in Elementary Education 401-(Pre-Student Teaching.) Most of the subjects were completing their college careers within 16 weeks from the test date, since the course in which they were enrolled preceded the eight-week student teaching experience. There was no selection process. Instead, an effort was made to include every student who registered for the course. Grade point average (GPA) calculated by the Office of the Registrar, after grades were recorded in December, 1973, ranged from 1.95 to 3.93 on a scale which assigned the value 4.0 to the grade of A; 3.0 to B, and so on. Seven-eighths of the course work had been completed by virtually every subject at the time their grades were averaged.

Form B of the well-known and widely-used Nelson-Denny Reading Test was selected as the data-gathering instrument. Since rate was a variable, it seemed essential to use a test

with a readability index on the college level (10). Besides rate, the scores used were vocabulary and comprehension. Although the test makes a total score available, that score and its percentile rank were not considered useful and were not included. Raw scores were recorded along with the corresponding percentile rank for grade 16.

The correlation coefficient that was calculated for each relationship was Pearson's r. The criteria, established in advance to be used in interpreting correlation, was set forth by Lien (5:71):

± .70 to ± 1.00	High to very high
± .40 to ± .70	Average to fairly high
± .20 to ± .40	Present, but low
00 to ± .20	Negligible or low

Results

When the Nelson-Denny Reading Test, Form B, was administered to 152 seniors in elementary education, its results indicated that certain students scored as high as the test permitted while others scored at or near the other end of the continuum. Table 1 shows the range of percentile ranks for the three subtests.

Table 1

Range of Percentile Ranks of Scores Achieved on the Nelson-Denny Reading Test, Form B, by 152 College Seniors

Subtest	Low	High
Vocabulary	1st	99th
Comprehension	1st	99th
Reading Rate	2nd	99th

The correlations among these scores and between each one of them and GPA is given in Table 2.

Table 2

Coefficients of Correlation, Expressed by Pearson's *r*, Among Reading Test Scores and GPA

Co-variables	GPA	Voc.	Comp.	Rate
GPA		.39**	.45**	.18*
Voc.	.39**		.90**	.42**
Comp.	.45**	.90**		.46**
Rate	.18*	.42**	.46**	

* Significant Statistically at the .01 level

** Significant Statistically at the .001 level

When the coefficients were compared to preset criteria, only vocabulary and comprehension, with r equaling .90, were highly correlated. Coefficients of .45 and .46, expressing the associations between comprehension and GPA and comprehension and rate, respectively, fell into the average to fairly high category, as did the .42 coefficient of correlation between rate and vocabulary. The r of .39 between vocabulary and GPA indicated a low correlation, while the relationship between rate and GPA was negligible. All correlations coefficients were positive. The probability that any one of them actually equaled zero was extremely slight.

Discussion

Among the associations sought in this investigation were the relationships between vocabulary and comprehension, between vocabulary and rate, and between comprehension and rate. Another purpose of the study was to find and report whether the college senior with good grades is necessarily a good reader. If he is, does he read slowly and carefully, or rapidly with comprehension?

There was no evidence to support a contention that the good student reads either rapidly or slowly. Reading rate, then, is a matter of individual preference. The average to fairly high positive correlation between GPA and comprehension indicates that the good student reads with understanding, whatever his rate may be. The average to fairly high positive relationship

between comprehension and rate supports the idea that those who read with understanding may be doing so at a rapid rate. The data fail to equate slow reading with good reading.

It was not surprising to find a high relationship between vocabulary and comprehension since it is logical to expect the comprehended passage to consist of known vocabulary. However, context clues or other factors apart from known vocabulary seem to assist the successful completion of course work, since the correlation between GPA and vocabulary was low.

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